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Dependence of Anterior Active Rhinomanometry Indices on Nasal Obstructive Disorders in Children with Atopic Bronchial Asthma Complicated by Nasal Symptoms

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Abstract

© 2018 Tatyana I. Eliseeva et al. Background. Atopic bronchial asthma (BA) in children is associated with upper airways pathology (UAP). Among them, a combination of allergic rhinitis (AR) and nasal obstructive disorders (NOD), including hypertrophy of the pharyngeal tonsil (HPT) and anomalies of the intranasal structures (AINS), is abundant. In such patients, anterior active rhinomanometry (AARM) is an important method of examining nasal patency. However, NOD can influence the AARM parameters in children with BA and nasal symptoms, and this effect must be taken into account in clinical practice. Study goal was to elucidate the effect of NOD on rhinomanometric parameters in this group of patients. Methods. Total of 66 children with BA and AR were examined with AARM, rhinovideoendoscopy, spirometry, and standard clinical tests allowing revealing the structure of comorbid pathologies. In order to avoid the influence of anthropometric parameters of children and their age on AARM parameters, a special index of reduced total nasal airflow was used. Results. It has been established that NOD, especially HPT, have a significant negative impact on the indices of anterior active rhinomanometry during the periods of both AR remission and AR exacerbation. The effect of AINS is much weaker and was remarkable only in combination with HPT.

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